Entry
Approved 9/15/06
LDR

IN THE CLAIMS:

1. **(Cancelled)**

2. **(Cancelled)**

3. **(Cancelled)**

4. **(Cancelled)**

5. **(Cancelled)**

6. **(Cancelled)**

7. **(Cancelled)**

8. **(Cancelled)**

9. **(Previously Presented)** An improved machine vision vehicle wheel alignment system including a first camera system configured to view at least one optical target disposed on a first side of a vehicle, a second camera system configured to view at least one optical target disposed on a second side of the vehicle, and a processor configured to process images and to calculate vehicle wheel alignment measurements, the improvement wherein:

a plurality of reference targets, each of said plurality of reference targets disposed within a field of view of said camera systems;

said first camera system and said second camera system are configured for independent movement relative to each other; and

wherein said processor is configured to utilize images obtained by said first and second camera systems to identify a relationship between at least one of said reference targets and each of said camera systems to establish a common reference coordinate system between said first camera system and said second camera system.